REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Office Action of July 28, 2004.

Reconsideration of the Application is requested.

Applicants Request Acknowledgment of Receipt of Formal Drawings

Included with this response is a set of formal drawings filed December 18, 2001. Applicants respectfully request acknowledgment of the receipt of the formal drawings in the present application.

The Office Action

Claims 1-23 remain in this application.

Claims 1-12 and 16-23 stand rejected under 35 U.S.C. §102(e) as being anticipated by Aikawa (U.S. Patent No. 6,671,066).

Claims 13-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Aikawa and in view of Suzuki (U.S. Patent No. 5,270,775).

The Present Application

The present application is directed to a communications system, in which the direct communications between a network and a marking device engine are provided. The marking engine controller, e.g. the DFE controller, is restricted from the bulk communication flow by segregating the marking engine jobs and marking engine control data. The marking engine control data is routed directly to the marking engine. The marking engine print job data is routed to the DFE controller for converting a document, presented as a page description language (PDL), into a form that can be printed by a specific marking engine, for example, the DFE controller translates the marking engine print job data into byte definitions per pixel. Because the DFE controller is a critical component of the system, the DFE controller is advantageously restricted from processing any additional data such as marking engine control data.

The Prior Art

Aikawa discloses a system comprising client computers 10, a printer server computer 20, and a copying machine 30 interconnected by a network 50. The

copying machine may serve as a printer based on instructions from a client computer 10. The client computer includes a printer driver and is utilized by a user to produce and edit the target document using the document production application software. After the printer driver converts the print data into the DSL, the converted data is transmitted to the printer server computer 20. (Col. 5, lines 20-22). The data is converted into a bitmap and delivered to the machine 30. The server computer also makes a decision whether the data is a status request. In this case, the server computer sends the data directly to the printer 30.

Claims 1-6 Distinguish over Aikawa

Claim 1 calls for among other limitations: a document processing device controller and a network interface controller. **Aikawa** discloses a system in which the client computer 10 performs the upper level processing and sends the DSL downstream to the printer server computer 20. E.g., the printer server computer 20, performs two functions: (1) translating the print job data into a bitmap and (2) separating print job data from the other data. These are the very two functions that the present application is directed to segregating. E.g., an interface controller is employed to separate the print job data from all the other data and a DFE controller is solely employed to convert the print job data into the byte definitions as disclosed in claim 1. The data flow to the DFE is restricted to devote processing resources of the DFE only to the print job data operations. Nowhere does Aikawa disclose or suggest using two separate processing devices; one for solely translating the print job data into printing signals and another for distributing jobs coming to the printer. It is therefore respectfully submitted that **claim 1 and dependent claims 2-6** distinguish patently and unobviously over Aikawa.

Claims 7-18 Distinguish over Aikawa

Claim 7 calls for among other limitations: a network interface controller interposed between the document processing device and the network system for distinguishing the remote communication signals as job data or control data; and a document processing device controller, disposed intermediate the network interface controller and the document processing device. The arguments used above to distinguish claim 1 are equally applicable to distinguish claim 7. **Aikawa** discloses a system in which the printer server computer 20 performs two functions: (1)

translates the print job data into a bitmap and (2) separates print job data from the other data. According to the Applicants' concepts, the jobs of the printer server controller of Aikawa is given to two controllers. The interface controller is employed to separate the print job data from the other data and a DFE controller is solely employed to convert the print job data into the byte definitions as disclosed in claim 7. Nowhere does Aikawa discloses or suggests using two separate processing devices; one for solely translating the print job data into printing signals and another for rerouting jobs coming to the printer. It is therefore respectfully submitted that **claim 7 and dependent claims 8-18** distinguish patently and unobviously over Aikawa.

Claims 19-20 Distinguish over Aikawa

Claim 19 calls for among other limitations: a digital front end (DFE) disposed in communication with the printer for receiving and translating the job data into imaging signals recognizable by the printer; and an intelligent interface network controller (iNIC) disposed intermediate the network and the DFE for selectively communicating the job data and control data directly to or from the printer. The arguments used above to distinguish claims 1 and 7 are equally applicable to distinguish claim 19. **Aikawa** discloses a system in which the printer server computer 20 performs two functions: (1) translates the print job data into a bitmap and (2) separates print job data from the other data. According to the Applicants' concepts, the jobs of the printer server controller of Aikawa is given to two controllers. The interface controller is employed to separate the print job data from the other data and a use of the DFE controller is restricted to convert the print job data into the byte definitions as disclosed in claim 19. Nowhere does Aikawa disclose or suggest using two separate processing devices; one for solely translating the print job data into printing signals and another for distributing jobs coming to the printer. It is therefore respectfully submitted that **claim 19 and dependent claim 20** distinguish patently and unobviously over Aikawa.

Claims 22-23 Distinguish over Aikawa

Claim 22 calls for among other limitations: segregating, at the interface controller, the control data from the job data; communicating the control data directly to the document processing device and the job data to the DFE; converting the job

data at the DFE to document processing signals recognizable by the document processing device; whereby the control data is communicated to and from the document processing device exclusive of a flow path through the DFE. The arguments used above to distinguish claims 1, 7 and 19 are equally applicable to distinguish claim 22. **Aikawa** discloses a system in which the printer server computer 20 performs two functions: (1) translates the print job data into a bitmap and (2) separates the print job data from the other data. According to the Applicants' concepts, the jobs of the printer server computer of Aikawa is given to two controllers. The interface controller is employed to separate the print job data from the other data and a DFE controller is employed to solely convert the print job data into the byte definitions as disclosed in claim 22. Nowhere does Aikawa disclose or suggest using two separate processing devices for processing a printing job flow; one processing device for distributing jobs coming to the printer and another processing device of a restrictive use for solely translating the print job data into printing signals. It is therefore respectfully submitted that **claim 22 and dependent claim 23** distinguish patently and unobviously over Aikawa.

CONCLUSION

For the reasons detailed above, it is submitted all claims remaining in the application **(Claims 1-23)** are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

No additional fee is believed to be required for this Amendment A. However, the undersigned attorney of record hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Deposit Account No. 24-0037.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to call Marina V. Zalevsky, at Telephone Number (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,
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10/28/04
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